

## National 4 Homework 20

### Questions 1 and 2 are Non Calculator

1. Calculate

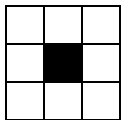
- a) 60% of 315kg                      b)  $8.24 - 3.9 + 6.75$                       c)  $\frac{3}{7}$  of 2198                      d) Simplify  $\frac{54}{60}$

2. In order to change a temperature in Celsius ( $^{\circ}\text{C}$ ) into Fahrenheit ( $^{\circ}\text{F}$ ), you multiply the Celsius temperature by 1.8, and then add 32 to your answer.

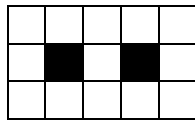
a) Write down a formula for calculating the temperature in ( $^{\circ}\text{F}$ ) when you know the temperature in ( $^{\circ}\text{C}$ ).

b) Water boils at  $100^{\circ}\text{C}$ . What is this temperature in Fahrenheit?

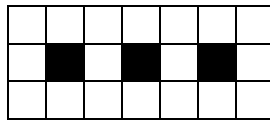
3. A mosaic pattern is created using tiles as follows.



1 black tile  
8 white tiles



2 black tiles  
13 white tiles



3 black tiles  
18 white tiles

a) Copy and complete the table.

Number of black tiles (B)	1	2	3	4	5		8
Number of White Tiles (W)							

b) Write down a formula to calculate the number of white tiles needed if you know the number of black tiles.

c) A mosaic uses 68 white tiles. How many black tiles are required?

4. A gardener creates a new design for landscaping a garden. The whole area is to be turfed, except for a circular patio. What area of turf will be required?

